

# Work Zone Traffic Safety

Employees being struck by vehicles or mobile equipment lead to many work zone fatalities or injuries. Work zones need traffic controls identified by signs, cones, barrels and barriers. Drivers, employees on foot, and pedestrians must be able to see and understand the proper routes. Construction project managers determine traffic control plans within construction/demolition worksites.

- Traffic control devices, signals, and message boards instruct drivers to follow paths away from where work is being done.
- Approved traffic control devices, including cones, barrels, barricades, and delineator posts are also used inside work zones.

**Work Zone Protections:** Various concrete, water, sand, collapsible barriers, crash cushions, and truck-mounted attenuators can help limit motorist intrusions into construction work zones.

**Flagging:** Flaggers should wear high visibility clothing with a fluorescent background and made of retro-reflective material. This makes employees visible for at least 1,000 feet in any direction. Check the label or packaging to ensure that the garments are performance class 2 or 3.

Drivers should be warned with signs that there will be flaggers ahead. Flaggers should use STOP/SLOW paddles, paddles with lights, or flags (only in emergencies).

**Lighting:** Flagger stations should be illuminated. Lighting for employees on foot and for equipment operators should be at least 5 foot-candles or greater. Where available lighting is not sufficient, flares or chemical lighting should be used. Glare should be controlled or eliminated.

**Training:** Flaggers must be trained/certified and use authorized signaling methods.

**Driving:** Seat belts and rollover protection should be used on equipment and vehicles as the manufacturer recommends.

# ROAD CONSTRUCTION AREAS

From the "Manual on Uniform Traffic Control Devices"

Even when all traffic control measures are taken, a confused or unaware driver can crash through a work site, or a daydreaming worker can step into the path of a speeding vehicle. Some drivers take reckless chances by running stop signs or changing lanes without signaling. These unsafe acts jeopardize other drivers who may lose control of their vehicle while avoiding a collision. Follow these safety procedures:

**Planning:** All traffic control must be carefully planned and approved by governing authorities before work begins. If you are responsible for planning, drive through the traffic pattern before any work starts to insure that the public will understand how to control their vehicles appropriately. If there is any possibility of driver confusion in the pattern, change it.

**Signage:** The Manual on Uniform Traffic Control Devices and local or state regulations should be followed for proper signage and barricading. Place initial warning signs a minimum of 1,000 feet from traffic revisions. All signs and related equipment should be in good condition and highly visible. In some cases, independent traffic safety contractors handle warning signs and barricades.

**Barricades:** Devices, which guide traffic such as cones or barrels should be highly visible and spaced relatively close together, so drivers will not deviate from an assigned traffic flow. All such barriers should be made of material that will cause little or no damage if a vehicle contacts it.

**Flaggers:** All employees should wear hard hats and must wear high-visibility orange or day-glow vests. When working at night, the vest should have light-reflective strips. Roadside construction sites must have at least one individual assigned to traffic control. A highly visible sign paddle should be used during daylight hours. It should be octagonal in shape, at least 18 inches across, and have letters at least six inches high that say *STOP* on one side and *SLOW* on the other. Flaggers should have two-way radios. When flaggers are present, a sign indicating this must be placed a minimum of 500 feet from the beginning of the detour.

**Vehicles:** All construction vehicles should be equipped with backing alarms, two-way radios, and *Slow Moving Vehicle* signs when appropriate. Ideally, they should be painted a highly visible color and many jurisdictions also require flashing yellow beacons. All operators must be qualified and trained to operate the equipment they are using. If a vehicle will be parked along side the road, orange safety cones should be placed around it to alert drivers.

**Night Work:** If work is done at night, the entire site must be illuminated. Increase warning distances in areas of fast-moving traffic as light fails. Flaggers should have orange-cone flashlights and barricades should be equipped with flashing lights. Any excavations or utility accesses should be taped off and barricaded with flashing warning lights.

# Flagging Safety

## *Safety Training Handout*

### **SIGNS CAN'T THINK**

Signs normally do a good job of giving messages or direction. But they have one disadvantage. They can't think. And if a situation changes suddenly, our signs can't automatically adjust. That is where we come in. A flag person is used where conditions are constantly changing and traffic instructions must change, too. For traffic control to be effective, the job has to be set up properly. We put out the necessary signs in advance to warn motorists they are entering a construction area, and to let them know that a flag person will be giving directions.

### **MAKE SURE THEY SEE YOU**

Motorists will be looking for the promised flag person, and should be able to spot you quickly. That is one reason you wear a fluorescent vest. So you will stand out. But let's not defeat its purpose. Don't let a bunch of other employees gather around you, so that you can't be seen at all. Or what do you suppose motorists think when they come upon a whole group of us waving our arms, all of us directing various pieces of construction equipment and no one directing the driver? Sometimes motorists find two persons giving them conflicting directions. We can avoid such situations by following these few basic rules:

1. As a flag person, you should understand what our operation involves, so that you know what to anticipate when directing traffic.
2. You should be properly dressed and neat in appearance. Foot wear is important. Remember that pavement can get mighty hot or cold, depending on the weather. Sturdy shoes or boots are advisable.
3. Depending on state requirements, paddles or flags of the correct size must be used. Flags should be at least 24" square.
4. There is only one right way to signal traffic, while there are many wrong ways. We all should be using one standardized set of signals.
5. Only designated flag persons should be directing traffic, except in emergency situations. These individuals must be alert to traffic conditions and the construction operations at all times.
6. Never turn your back on traffic. Many a flag person has been knocked for a loop.
7. Flag persons should be firm but courteous with the public at all times. The general public could well form an opinion of the construction industry as a whole by the impression they receive from you.

### **THEIR HIGHWAY**

Always remember that it's the public's high-way. So, we do want to be courteous. But at the same time, we want to make sure that an accident doesn't happen. We may have to be especially firm with some motorists to keep them from hurting themselves or others. Being a flag person is a very important job, because you have the responsibility of protecting the public, your fellow workers, and yourself.



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For more complete information:

 **Occupational  
Safety and Health  
Administration**  
U.S. Department of Labor  
[www.osha.gov](http://www.osha.gov) (800) 321-OSHA

OSHA 3284-05R-07

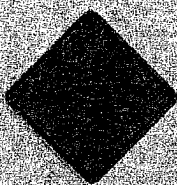
A work zone is an area of a roadway with construction, maintenance, utility work or incident management activities. A work zone is typically marked by signs, cones, drums, barriers, pavement markings and/or work vehicles. It extends from the first warning sign to the **END ROAD WORK** sign. Speed limits are often reduced in work zones to accommodate lane shifts and protect workers.

With nearly a 40% increase in work zone fatalities between 1997 and 2005, work zone safety is a growing roadway safety concern. Four out of every five work zone fatalities were motorists.

Each year nearly 6,000 crashes occur in New Jersey when road construction or workers are present. Approximately 1,500 of these work zone crashes result in injury. A majority of work-zone crashes are rear end or same direction sideswipe collisions, which can be attributed to following too closely behind the car in front of you, improper lane changes or poor lane merges.

Schedule enough time to drive safely. Check radio, television and Websites for traffic information. For work zone information within New Jersey online, visit: <http://www.NJCommuter.com>

We are all responsible for driving, walking and biking safely through work zones.



Roadwork is just ahead. Be prepared for unusual driving conditions. Motorists should anticipate driving Be alert and drive carefully.



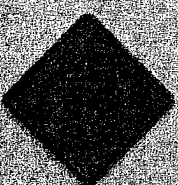
Traffic is traveling in both directions on a roadway that is normally one way. Be alert for oncoming traffic.



A lane is about to end requiring you to merge into the adjacent lane. The bent lane shows which lane is ending.



A flagger is ahead – be prepared to stop and/or follow instructions.



You will need to take an alternate route.



You have reached the end of the work zone. Resume normal, safe driving.

Remember, please driving time to avoid a sudden change in plans, and perhaps save a life – it could be your own!

#### **STAY ALERT**

Dedicate your full attention to the roadways.

#### **MINIMIZE DISTRACTIONS**

Avoid changing radio stations, using mobile phones, eating and other distractions that can remove your concentration from the road.

#### **PAY CLOSE ATTENTION**

Listen to the signs. Watch brake lights on vehicles ahead. Watch traffic around you and be prepared to react.

#### **DON'T TAILGATE**

The most common crash in a highway work zone is the rear end collision.

#### **SLOW DOWN!**

Speeding is one of the major causes of work zone crashes. Fines are doubled for moving traffic violations in work zones.

#### **CHANGE LANES SAFELY**

Change lanes only where pavement markings indicate, and only when traffic conditions permit.

#### **FOLLOW FLAGGER INSTRUCTIONS**

A flagger has the same authority as a regulatory sign so you can be fined for disobeying directions.

#### **EXPECT THE UNEXPECTED**

Normal speed limits may be reduced, traffic lanes may be changed, and people may be working on or near the road.

#### **EXPECT DELAYS**

Plan for them and leave early to reach your destination on time. Take an alternate route if possible.

#### **BE PATIENT AND STAY CALM**

Work zones aren't there to personally inconvenience you. Remember: The goal of the work zone crew is to improve the road and your future drive.

# ANSWER THE 12 MONTHS OF TRAFFIC SAFETY QUESTIONS

1	Most work zone speed limits are only in effect in construction areas where workers are present.
2	The most common crash in a highway work zone is the rear end collision.
3	Fines are doubled for moving traffic violations in work zones.
4	A majority of work zone fatalities involve the workers and not the motorists.
5	A flagger does not have the same authority as a regulation sign.
6	It is not necessary to obey reduced speed limits in work zones.
7	Speeding is a major cause of work zone accidents.
8	Rear-end and same direction side-swipe crash types are predominant in work zones.

Answers: (1) False (2) True (3) True (4) False (5) False (6) False (7) True (8) True

For additional information, please visit:

www.state.nj.us/transportation  
www.njmv.com  
www.njsaferoads.com  
www.icnj.org

or email:

nj.safety@fhwa.dot.gov

## THE 12 MONTHS OF TRAFFIC SAFETY

The 12 Months of Traffic Safety is a campaign to increase public awareness of traffic safety issues. Different traffic safety issues will be highlighted each month of the year. Campaign issues include:

Aggressive Driving

Bus and Train Safety

Child Passenger Safety

Drive Safely in Inclement Weather

Driver Inattention

Drowsy Driving

Drunk Driving: Over the Limit, Under Arrest.

Helmets & Wheels

Intersection Safety

Motorcycle Safety

Occupant Protection

Pedestrian & Bicycle Safety

School Bus Safety

Senior Safety

Truck Safety

Work Zone Safety

Young Drivers

Sponsored by:

United States Department of Transportation  
New Jersey Department of Transportation  
New Jersey Division of Highway Traffic Safety  
New Jersey Motor Vehicle Commission  
New Jersey State Police  
New Jersey State Association of Chiefs of Police  
Insurance Council for New Jersey  
AAA Clubs of New Jersey

TRAFFIC SAFETY  
12 MONTHS OF  
WORK ZONES!

